



Greg A. Foley, Executive Director

KANSAS
State Conservation Commission

Kathleen Sebelius, Governor

MINUTES OF THE STATE CONSERVATION COMMISSION MEETING

September 11, 2006

1. The State Conservation Commission meeting was called to order by Rod Vorhees, Chairman and Area V Commissioner at 9:04 a.m., Monday, September 11, 2006 at the Grand Prairie Hotel & Convention Center in Hutchinson, KS.

2. ATTENDANCE:

Elected Commissioners:

Ted Nighswonger, Area I
Andy Larson, Area II
Richard Neville, Area III
John Wunder, Area IV
Rod Vorhees, Area V

Ex-officio and appointed members:

Paul Graves, KDA, Division of Water Resources
Dan Devlin, KSU Research & Extension
Phil Barnes, KSU Research & Extension
Harold Klaege, NRCS

Staff:

Greg Foley, Executive Director

Scott Carlson, Assistant Director

3. APPROVAL OF AGENDA:

- a. Amendments. 8. c. Review SCC Luncheon speaker candidates for the KACD Annual Meeting.

Motion by Andy Larson to approve the agenda as amended. Seconded by Ted Nighswonger. Motion carried.

4. MINUTES OF PREVIOUS MEETING:

A motion was made by Richard Neville and seconded by John Wunder to approve the minutes of the July 15, 2006 meeting and the August 24, 2006 Conference Call as mailed. Motion carried.

5. GUESTS:

John Cowley, State Association Kansas Watersheds
Pat Lehman, Kansas Association of Conservation Districts
Mindy Vogt, District Manager, Harvey County Conservation District
Kansas Association of Conservation Districts, Board of Directors to join at 9:30 a.m.

6. COMMUNICATIONS AND ANNOUNCEMENTS:

- a. Correspondence from Sheridan County Conservation District.
- b. Interim Committees.

7. UNFINISHED BUSINESS:

- a. FY 2007 Budget Status – Greg Foley – Financial Report. Handout of final KWA Recommendations.
- b. Update on NRCS Contribution Agreement – Greg Foley.
 - i. 66 counties expressed intent to participate in new agreement.
 - ii. SCC submitted a proposal to NRCS to offer EQIP and CSP clerical assistance.

Motion by Ted Nighswonger to negotiate with NRCS to enter a Fiscal Year 2007 contract to provide clerical assistance for EQIP and CSP. Seconded by Andy Larson. Motion carried

- c. Meet with the KACD Board of Directors via teleconference to discuss strategies relating to possible conservation district office closures and reductions in technical assistance to implement state programs.
- d. Approve FY 2006 Year-End Financial Report – Greg Foley.

Motion by John Wunder to approve the FY 2006 Year-End Financial Report as mailed. Seconded by Ted Nighswonger. Motion carried.

8. NEW BUSINESS:

- a. Watershed Dam Construction Program.

Review and take possible action on FY 2007 dam rehabilitation applications for financial assistance – Greg Foley. (See handout).

Motion by Ted Nighswonger to authorize funding in the amount of \$419,965.60 from the FY 2007 Watershed Dam Construction Program for the following rehabilitation applications: see handout. Seconded by John Wunder. Motion carried.

- b. Review and assign commissioner duties for the KACD Annual Meeting.
 - i. Preside at Monday SCC luncheon: Rod Vorhees.
 - ii. Give invocation at Monday luncheon: Andy Larson.
 - iii. Guest luncheon speaker introduction: John Wunder.
 - iv. Presentation of 20 year awards: Dick Neville and Ted Nighswonger.

- v. Hold elections at area meetings for the following:
 - a. KACD areas I, III, V.
 - b. SCC areas II and IV.
- c. Review SCC luncheon speaker candidates for the KACD Annual Meeting – Greg Foley.
- d. Administration.
- e. Authorize Commissioner and staff travel – Greg Foley.

9. REPORTS:

- a. Agency Reports - Harold Klaege, NRCS, Paul Graves, DWR, Phil Barnes, KSU, Research & Extension, and Dan Devlin, KSU, Research & Extension provided written reports and are attached.
- b. Commissioner Reports.
- c. Staff Reports.
 - i. Scott Carlson reported he will be attending the Conservation Easement Signing ceremony at the Bacon Ranch near Council Grove Saturday September 16. This event commemorates the first state contribution to an easement participant using the USDA Farm and Ranchland Protection Program administered by the NRCS. The Kansas Land Trust is sponsoring the event.
 - ii. Staff reported the revisions to the SCC website are progressing and the site will be presented to conservation districts at the 2006 KACD Annual Meeting in Wichita.

10. NEXT MEETING

The next regular Commission meeting is scheduled for Sunday November 19, Wichita, KS at 2:00 p.m. The location of the November 19, 2006 meeting will be the Wichita Airport Hilton, 2098 Airport Road, Wichita, KS, 67209-1941. Tel: (316) 945-5272 Fax: (316) 945-7620.

11. ADJOURN:

Motion by Andy Larson to adjourn. Seconded by Ted Nighswonger. Motion carried.
Meeting adjourned at 1:00 p.m.

Greg A. Foley
Executive Director

**STATE CONSERVATION COMMISSION
FY 2006 QUARTERLY FINANCIAL REPORT**

JULY 1, 2005 - JUNE 30, 2006

CORRECTED COPY 07/21/2006:						
PROGRAM/FUND	Appropriation/ Allocation	Total Expenditures	% of Funds Expended	Funds Committed/ Encumbered	% of Committed Funds	Uncommitted Balance
1. STATE GENERAL FUND						
a. Office operations (1000)	644,008.85	625,792.70	97.2%	0.00	0.0%	18,216.15
TOTAL - STATE GENERAL FUND	644,008.85	625,792.70	97.2%	0.00	0.0%	18,216.15
2. STATE WATER PLAN FUND						
a. Water Resources Cost-Share - (1200)						
(1) CSIMS Cost-Share Assistance	3,493,609.50	2,102,827.28	60.2%	995,184.21	28.5%	395,598.01
(2) Office Operations	119,098.68	119,098.68	100.0%	0.00	0.0%	0.00
(3) Reserve	446,546.75	0.00	0.0%	0.00	0.0%	446,546.75
Sub-total	4,059,254.93	2,221,925.96	54.7%	995,184.21	24.5%	842,144.76
b. Water Resources TA - TSP Employees - (1205)	259,100.00	154,653.43	59.7%	0.00	0.0%	104,446.57
c. Non Point Source Pollution Control - (1210)						
(1) Cost-Share Assistance	2,416,891.00	1,257,462.50	52.0%	850,259.36	35.2%	309,169.14
(2) Office Operations	77,986.00	45,289.48	58.1%	15,064.47	19.3%	17,632.05
(3) Technical Assistance (Conservation District)	530,804.00	430,820.90	81.2%	2,315.00	0.4%	97,668.10
(4) Reserve	55,636.43	0.00	0.0%	0.00	0.0%	55,636.43
Sub-total	3,081,317.43	1,733,572.88	56.3%	867,638.83	28.2%	480,105.72
d. Aid to Conservation Districts - (1220)	1,044,000.00	1,033,965.73	99.0%	10,000.00	1.0%	34.27
e. Watershed Dam Construction - (1240)						
(1) Cost-Share Assistance - 1240	302,499.00	150,553.84	49.8%	151,945.16	50.2%	0.00
(2) Watershed Dam Restoration - 1240	750,000.00	0.00	0.0%	0.00	0.0%	750,000.00
(3) Cost-Share Assistance - 1245	50,000.00	50,000.00	100.0%	0.00	0.0%	0.00
Sub-total	1,102,499.00	200,553.84	18.2%	151,945.16	13.8%	750,000.00
f. KS Water Quality Buffer Initiative CSIMS C/S - (1250)	487,203.88	0.00	0.0%	207,692.17	42.6%	279,511.71
g. Kansas Water Quality Buffer Initiative - (1255)						
(2) Buffer Initiative Coordinator	35,000.00	35,000.00	100.0%	0.00	0.0%	0.00
(3) Office Operations	5,000.00	4,907.52	98.2%	0.00	0.0%	92.48
Sub-total	40,000.00	39,907.52	99.8%	0.00	0.0%	92.48
h. Riparian and Wetland Protection - (1260)						
(1) Demonstration Projects/KWO Projects	192,235.99	57,160.65	29.7%	121,148.64	63.0%	13,926.70
(2) Office Operations	66,000.00	36,686.51	55.6%	29,313.06	44.4%	0.43
Sub-total	258,235.99	93,847.16	36.3%	150,461.70	58.3%	13,927.13

PROGRAM/FUND		Appropriation/ Allocation	Total Expenditures	% of Funds Expended	Funds Committed/ Encumbered	% of Committed Funds	Uncommitted Balance
	i. MPSL - Horse Thief Reservoir (1265)	536,333.00	0.00	0.0%	536,333.00	100.0%	0.00
	TOTAL - STATE WATER PLAN FUND	10,867,944.23	5,478,426.52	50.4%	2,919,255.07	26.9%	2,470,262.64
3.	STATE ECONOMIC DEVELOPMENT INITIATIVES FUND -1900						
	a. Conservation Easements (1300)	31,250.00	31,250.00	100.0%	0.00	0.0%	0.00
	b. MPSL - Horse Thief Reservoir (1310)	50,000.00	0.00	0.0%	50,000.00	100.0%	0.00
	TOTAL - STATE ECONOMIC DEVELOPMENT INITIATIVES FUND	81,250.00	31,250.00	38.5%		0.0%	0.00

PROGRAM/FUND		Fee Deposit Accounts	Total Expenditures	% of Funds Expended	Funds Committed/ Encumbered	% of Committed Funds	Uncommitted Balance
4.	LAND RECLAMATION FEE FUND - (2542)						
	a. Office Operations	244,321.36	169,134.85	69.2%	2,550.00	1.0%	72,636.51
	b. American Express Credit Card Fund (9453-9400) Fee fund only expenditures are transfers to LR and credit card monthly fees.	2,809.74	2,743.09	97.6%	0.00	0.0%	66.65
	TOTAL - LAND RECLAMATION FEE FUND	247,131.10	171,877.94	69.5%	2,550.00	1.0%	72,703.16
5.	BUFFER PARTICIPATION INCENTIVE FUND KDWP (2517)	150,000.00	150,000.00	100.0%	0.00	0.0%	0.00
6.	KWO-RW CSIMS DEMO PROJECTS - (2522)	3,448.46	3,448.46	100.0%	0.00	0.0%	0.00
7.	FEDERAL FUNDS - 3914						
	a. KAWS Projects CSIMS C/S & Oper (EPA) (3620)	2,227.81	2,227.81	100.0%	0.00	0.0%	0.00
	b. KWO - CSIMS C/S & Special Proj (EPA) (3630)	14,400.00	14,400.00	100.0%	0.00	0.0%	0.00
	c. EPA-Wetland Protection (3640)	110,255.56	86,927.85	78.8%	12,312.42	0.0%	0.00
	d. EPA-KDHE-KAWS Wetland Protection (3650)	6,493.46	3,063.97	47.2%	3,429.49	0.0%	3,429.49
	e. EPA2-Wetland Protection (3660)	15,000.00	0.00	0.0%	15,000.00	0.0%	0.00
	f. EPA2-KDHE-KAWS Wetland Protection (3670)	20,000.00	0.00	0.0%	20,000.00	0.0%	0.00
	TOTAL- FEDERAL FUNDS - 3914	168,376.83	106,619.63	63.3%	50,741.91	0.0%	3,429.49
8.	FEDERAL FUNDS - 3915						
	a. EPA-NPS Operations (KDHE) (3730-67400)	94,739.00	58,313.31	61.6%	10,200.00	10.8%	26,225.69
	b. EPA-Buffer Partnership (KDHE) (3730-67600)	88,525.02	64,653.35	0.0%	0.00	0.0%	23,871.67
	TOTAL- FEDERAL FUNDS - 3915	183,264.02	122,966.66	67.1%	10,200.00	0.0%	50,097.36

	PROGRAM/FUND	Fee Deposit Accounts	Total Expenditures	% of Funds Expended	Funds Committed/ Encumbered	% of Committed Funds	Uncommitted Balance
9.	NRCS CONTRIBUTION AGREEMENT - 3917						
	a. Contribution Agreement Employees, Travel (3800-67320)	155,998.61	156,887.96	100.6%	0.00	0.0%	(889.35)
	b. CD Operations and Indirect (3810-67320)	183,368.80	179,503.98	97.9%	1,224.40	0.7%	3,864.82
	b. CD Operations and Indirect (3820-67420)	19,503.22	9,999.70	51.3%	16,120.30	82.7%	9,503.52
	TOTAL- NRCS FUNDS - 3917	175,501.83	346,391.64	197.4%	17,344.70	0.0%	12,478.99

10.	CONSERION FUND (2429-2000)	165.00	0.00	0.0%	0.00	0.0%	165.00
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11.	MOTOR VEHICLE FUND - (6118-6000)	42,344.16	7,104.72	16.8%	0.00	0.0%	35,239.44
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State Conservation Commission
Watershed Dam Construction Program
FY 2007 Rehabilitation

	Watershed District	Site	County	Basin	Detention Storage	Drainage Acres	State C/S Requested	Total State C/S Requested By District	State C/S Approved	Hazard	Scope
1	Allen Creek No. 89 ⁽¹⁾	104	LY	NEO	82	408	\$ 42,800.00	\$42,800.00	\$17,600.00	L	Pipe, Embankment & Fence
3	Delaware No. 10	C-134	JA	KLR	620	1,710	\$68,000.00	\$68,000.00	\$68,000.00	-	Spillway Works, Auxiliary Spillway and
	Labette Hackberry Creeks No. 96	B-21	NO	NEO	188	778	\$ 10,000.00	\$ 10,000.00	Withdraw	L	Stilling Basin, Embankment
4											Replace Riser and Pipe
4	Little Walnut-Hickory No. 18	3	BU	WAL	259	1,024	\$18,242.40			L	Replace Riser and Pipe
5	Little Walnut-Hickory No. 18	6	BU	WAL	143	563	\$16,432.00			L	Replace Riser and Pipe
6	Little Walnut-Hickory No. 18	14	BU	WAL	127	500	\$16,216.00			L	Replace Riser and Pipe
7	Little Walnut-Hickory No. 18	16	BU	WAL	219	890	\$18,007.20			L	Replace Riser and Pipe
8	Little Walnut-Hickory No. 18	32	BU	WAL	272	1,071	\$18,911.20			L	Replace Riser and Pipe
9	Little Walnut-Hickory No. 18	38	BU	WAL	180	730	\$16,636.80	\$104,445.60	\$104,445.60	L	Replace Riser and Pipe
10	Sand Creek No. 68	2	HV	LRK	476	947	\$43,200.00	\$43,200.00	\$43,200.00	H	Raise & Widen Auxiliary Spillway
11	Spring Creek No. 16	R-1	SG	LRK	77	672	\$88,720.00	\$88,720.00	\$88,720.00	H	Raise & Widen Auxiliary Spillway and
											Raise top of the dam
12	Switzler Creek No. 63	7	OS	MDC	1,422	3,130	\$98,000.00	\$98,000.00	\$98,000.00	H	Raise top of the dam, line the PS & may raise AS
6 Watersheds (11 Structures)				GRAND TOTAL ==>				\$419,965.60			

⁽¹⁾Allen Creek WD 89 was approved for \$102,400 for the construction of site 104 for FY-07. K.A.R. 11-3-4 limits the cost share assistance per year per District to \$120,000.



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Natural Resources Conservation Service
760 South Broadway
Salina, Kansas 67401-4604

“A Partner in Conservation Since 1935”

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**NRCS HIGHLIGHTS OF ACTIVITIES
for the
STATE CONSERVATION COMMISSION MEETING**

**HUTCHINSON, KANSAS
SEPTEMBER 11, 2006**

PERSONNEL

Reassignments: Dennis S. Doring, District Conservationist, Sedan to
District Conservationist, Altamont
Katie B. Wilson, Rangeland Management Specialist, Winfield
(previously student trainee)
Alex D. Miller, Rangeland Management Specialist, Winfield to
Rangeland Management Specialist, Westmoreland
Kasey M. Robinson, Soil Conservationist, Lakin to
Soil Conservationist, Holton
Kimberly M. Lary, Soil Conservationist, Holton to
Soil Conservationist, Junction City

Resignation: Lawrence J. Sample, Civil Engineer, Dodge City

Michael D. Marshall, Assistant State Conservationist for Operations, Salina, retired on August 3, 2006. Effective August 6, 2006, the following personnel changes were made at the state office:

- James J. Krueger, Assistant State Conservationist for Operations
- Jeffrey L. Hart, State Resource Conservationist

The position for the assistant state conservationist for technical services will not be filled at this time.

PROGRAMS

Conservation Security Program (CSP)

Kansas received 100 eligible applications during the Fiscal Year (FY) 2006 signup period.

Kansas approved 41 CSP contracts totaling \$500,000 in FY 2006. Thirty-two contracts were in Tier II and nine contracts were in Tier III. Due to funding limitations, all of the contracts were prorated to 70 percent of the FY 2006 payments.

Environmental Quality Incentives Program (EQIP)

Kansas received \$31,966 in additional funds from EQIP Ground and Surface Water Conservation (GSWC). In FY 2006, 105 contracts in EQIP GSWC for \$3.3 million were funded. Of these 60 were in the Quick Response Areas (QRAs), for a total of \$2.3 million. Contracts in the QRAs will switch to non-irrigated starting with the first full cropping season of the contract, for the contract period.

Kansas did not receive any additional funds under regular EQIP. In FY 2006, a total of 1,555 contracts for \$20.5 million were funded.

Preparation has begun for FY 2007 EQIP. The Kansas Technical Committee (KTC) met on August 17, 2006 to give their recommendations to the State Conservationist (STC) for EQIP.

FY 2007 application evaluation cutoff date has been set for December 15, 2006. While EQIP applications can be taken at any time during the year, applications received by December 15, 2006, will be considered for FY 2007 funding.

Emergency Watershed Protection Program (EWP)

There is no EWP activity in Kansas at this time.

Farm and Ranch Lands Protection Program (FRPP)

Cooperative agreements have been signed with two non government organizations (NGO) to obligate the \$485,474 received for FRPP in FY 2006. The NGOs have a two-year period to complete the conservation easement filing. The conservation easement protects prime soils and soils of state-wide significance from being converted to non agricultural uses. Both of these conservation easements will be located in the Flint Hills region of Kansas. Kansas received word that the additional \$794,631 requested to fund the remaining FRPP requests for FY 2006 was not approved at this time. There is still a possibility of end of the year funds which may be available. With the addition of these two easements, over 7,800 acres of Flint Hills agricultural land will be protected under the FRPP program in Kansas.

Grassland Reserve Program (GRP)

Since June, Kansas NRCS closed 10 GRP permanent easements that cover over 4,000 acres in Chase, Geary, Greenwood, Ottawa, Pottawatomie, and Riley counties. Since inception of the program, Kansas ranchers have permanently protected through GRP, an astounding 15,550 acres (29 permanent easements) of the finest native grassland in the world. Another 7,000 acres (20 easement contracts) should be closed in the next several months.

In late August, Kansas NRCS received over \$500,000 in additional GRP financial assistance to enroll acreage in drought-affected counties. These funds are to be targeted to rental agreement contracts of 10, 15, or 20-year duration. These contracts will be signed by September 30.

Watershed Operations

Design:

- Designs and design reviews are “on hold” until next FY when additional funding is expected. The design of Lyons Creek, Site 15, must be modified due to the discovery of dispersive soils to allow their use in the fill.

Construction:

- The construction of all six dams that were under construction this spring and summer has been completed. Some fencing, fall seeding, and other minor items of work are being completed this fall.

Watershed Planning

NRCS is currently developing five Rapid Watershed Assessments (RWAs). RWAs in the Coon-Pickerel, Upper Verdigris, and the Delaware River watersheds will be completed soon. Assessments include a two-phase approach to evaluate and assess resource conditions within eight-digit hydrologic unit codes (HUC-8). NRCS, in cooperation with the Kansas Department of Health and Environment (KDHE), will also be completing the Lower Republican and the Middle Kansas RWAs by the end of September. KDHE will incorporate water quality condition reports into the RWAs. When complete, each RWA will be published for viewing on the Kansas NRCS Web site.

NRCS will be completing 15 RWA resource profiles (phase 1) and three complete RWAs in the coming year.

NRCS will be meeting with the Delaware Watershed to initiate preliminary investigations for watershed planning in the Spring-Straight sub-watershed of the Delaware River Basin.

Watershed Rehabilitation

NRCS received an application for federal assistance for Watershed Rehabilitation from the Switzler Creek Watershed district for FY 2007 planning funding for Site 7. The application has been evaluated and ranked for FY 2007. NRCS will meet with the sponsors, the Division of Water Resources, and the State Conservation Commission (SCC) to further evaluate the project.

Additional watershed rehabilitation assistance is being coordinated with several other PL-566 watershed districts across the state.

Wetlands Reserve Program (WRP)

Two new WRP easements were filed since the last report on an additional 250 acres, protecting or restoring 228.4 acres of wetlands. For the year, easements restoring and/or protecting 790 acres of wetlands have been filed. Approximately 12,800 acres of land are currently enrolled in the program statewide.

Appraisals are being completed on the 13 remaining 2006 WRP applications. As of September 1, 2006, approximately 50 percent of the FY 2006 offers made to date have been accepted. Kansas received an allocation of approximately \$1.4 million for WRP contracts in FY 2006.

WRP annual site reviews have been selected on 10 percent of the existing easement contracts, and reviews will be completed by the end of the calendar year. Onsite reviews are to be completed, at a minimum, once every three years.

Wildlife Habitat Incentives Program (WHIP)

Initially in FY 2006, 129 WHIP contracts totaling \$543,000 were funded in Kansas.

Kansas received an additional \$248,000 in financial assistance on August 25, 2006. This will allow for the approval of 55 additional contracts across the state.

Preparation has begun for the FY 2007 WHIP. The KTC provided their recommendations to the STC on August 17, 2006.

FY 2007 application evaluation cutoff date has been set for December 15, 2006. While WHIP applications can be taken at any time during the year, applications received by December 15, 2006, will be considered for FY 2007 funding.

TECHNOLOGY

We have completed a new irrigation system comparison rating tool. This tool was developed with the assistance of Danny Rogers and other irrigation specialists at Kansas State Research and Extension. This tool will replace Table KS6-1 in the National Engineering Handbook Part 652, *Irrigation Guide*, and will be available electronically. This tool incorporates management practices in addition to irrigation system hardware to better determine the relative amount of water used by a crop to promote plant growth.

Architect and Engineer (A&E) Contracting - We continue to work and meet with our consultants, clients, and the KDHE to get projects designed and constructed. Since September 2003, contractors have completed 31 manure and wastewater handling and storage systems and have completed construction installation and checkout services on three systems. Presently, there are 17 projects in design and another 7 projects in construction phases.

Cooperative Agreement with the SCC - With the assistance of The Watershed Institute (TWI), they have completed the designs for 15 EQIP contracts and have 6 more in progress. They have provided construction installation and checkout services on two projects (except that the tree and shrub planting will be done in the spring of 2007).

The following conservation practice standards were recently updated:

- 606 - Subsurface Drain
- 443 - Irrigation System, Surface and Subsurface
- 560 - Access Road
- 460 - Land Clearing
- 388 - Irrigation Field Ditch

The Level Terrace Design spreadsheet was posted on our home page under "Technical Resources."

Ecological Site Descriptions for MLRAs 76 and 112 were completed in August and will enter the review process in FY 2007.

OTHER

Six "expiration" notices were sent to Technical Service Providers (TSPs) since July 1, 2006. We received renewal replies for three of those individuals. Seven individuals have let their agreements expire and are no longer listed in TechReg. One individual (an engineer) was re-certified. This applies to Kansas "home state" applicants. We have coordinated with other states concerning ten individuals who reside in other states and have applied for re-certification in Kansas. Presently, we have 34 "residents" and 32 "non-residents" for a total of 66 individuals certified to do work in Kansas.

USDA/NRCS Grants approved this FY:

Kansas Conservation Innovation Grants (CIGs)

- Kansas State University Advanced Manufacturing - \$50,000 – Development and Demonstration of a Phosphate Recovery Device that is Economical for Combines Animal Feeding Operations
- Agriment Services Inc. - \$50,000 – Anaerobic Lagoon Biological Enhancement Program

Conservation Technical Assistance Program – Grazing Lands Conservation Initiative

- Tallgrass Legacy Alliance - \$3,000,000 – Controlling *Sericea Lespedeza* by Offering Cost Sharing on Innovation Management Techniques

National CIGs with Kansas Participation Along with Other States

- Colorado State University - \$216,765 – Sustainable Cropping Systems for Transition from Full Irrigation to Limited Irrigation and Dry Land
- Chicago Climate Exchange - \$750,000 – Carbon Credit Generation Program
- Purdue University Sponsored Program Services - \$203,894 – Multi-Criteria Optimization of Watershed Management Practices for Sediment, Nutrient, and Pesticide Control

Cooperative Conservation Partnership Initiative (CCPI) Grants

- Kansas State University - \$148,000 – Rapid Watershed Assessments in Northwest Kansas
- The Nature Conservancy - \$59,500 – Greater Prairie Chicken Habitat Restoration – Oklahoma and Kansas

National Resources Inventory (NRI)

- Kansas was the first state to complete the 2006 rangeland field study. This will be done in 2007 also.
- The local data collection is an annual remote sensing data collection. Imagery has been processed for 41 Kansas counties. Thirty-nine field offices have completed their data entry.
- Conservation Effects and Assessment Project (CEAP) - The National Agricultural Statistics Service will hold their training session the last week of September. Data collection will begin October 2. Twenty-nine counties are included in this year's data collection. This is the last year of the NRI-CEAP data collection.

The Marion County Conservation District, Marion Lake Watershed Restoration and Protection Strategy (WRAPS) project and No-Till on the Plains cooperatively presented a no-till systems management field day. Featured speakers were Dr. Ray Ward of Ward Laboratories in Kearney, Nebraska; and Bud Davis, NRCS Agronomist; along with a panel of farmers. The emphasis was to educate watershed farmers in management systems that will improve profitability and reduce sediments, pesticides, and nutrients in the Marion Reservoir.

Two adult Range Schools were held in August. Producers from around the state participated at Rock Springs 4-H Camp or Scott State Lake. Good stewardship and riparian area management were the primary topics of focus. These camps were sponsored by the Tallgrass Legacy Alliance (TLA) and the Kansas Grazing Lands Coalition (KGLC).

The TLA will sponsor a field day September 20, 2006, addressing erosion concerns enhanced by grazing practices. The field day will focus on structural practices which minimize grazing animal impact on streams.

Rangeland management specialists around the state are working with producers who have enrolled and received CSP contracts on grazing lands. The main focus at this time of the contract is the potential to bump up their contracts to a higher tier. This can be accomplished by addressing resource concerns which do not meet quality criteria.

Report to State Conservation Commission

September 11, 2006

Hutchinson, Kansas

by

Paul Graves, Assistant Chief Engineer
Kansas Department of Agriculture
Division of Water Resources

Some issues that KDA is currently working on include:

1. **Cost-share program for dam rehabilitation/mitigation:** SCC's cost-share program for dam rehabilitation is limited to watershed district/special district dams. KDA supports a proposed expansion of this program to include dams in other ownership classes, subject to eligibility requirements and conditions. The Natural Resources Subcabinet has indicated support for this initiative. Pending approval from the Governor's office, KDA proposes to discuss the initiative with KLA and seek sponsorship of a possible bill.
2. **Legislative interim hearings:** KDA will provide testimony at the following hearings:
 - September 12 – budget committee re: status of *Kansas v. Colorado*
 - September 18 – agriculture and natural resources committee re: dam safety
 - September 19 – agriculture and natural resources committee re: interstate water issues and Ozark Aquifer
3. **MDS administration:** An unprecedented number of stream segments (up to 11 at any one time) have been below minimum desirable streamflow levels this summer. KDA staff has issued cease pumping orders to 279 junior rights along those streams and inspected for compliance.
4. **Other drought-related tasks:** KDA has also protected reservoir releases from unauthorized use and conducted numerous impairment investigations. Technical assistance was provided to ethanol plants, cities, rural water districts, and other entities seeking alternative sources of water, preparing applications for new water rights, and requesting changes to existing water rights.
5. **Floodplain mapping:** FEMA has awarded \$1.57 million in funding to KDA for state coordination in the development of new or updated flood insurance rate maps for 18 Kansas counties.
6. **Dam inspections:** KDA has hired two additional dam safety engineers, and will be inspecting all high and significant hazard dams prior to next July. This follows several years during which these dams were inspected primarily by consultants retained by the owners.

Little Arkansas River WRAPS Implementation: Accomplishments in 2006

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Project Highlights

- Crop consultants were trained to understand and implement best management practices for atrazine herbicide.
- Three watersheds within the Little Arkansas River watershed were targeted for rapid implementation of best management practices for atrazine herbicide.
- Fifty-four farmers were trained at winter schools to understand atrazine best management practices.
- Fifty one-on-one farm visits were made by KSU extension agronomists to secure best management practice commitments from farmers in targeted watersheds.
- Forty-one farmers in targeted watersheds committed to implementing best management practices for atrazine herbicide.
- Three integrated agricultural management sites were established to demonstrate and evaluate best management practices for pesticides, sediments, and nutrients.
- An automated surface water monitoring system was installed in order to evaluate the effectiveness of best management practice implementation.
- Farmers implemented atrazine best management practices on 4,792 acres of grain sorghum. This is approximately 37% of the grain sorghum acres planted in the three targeted watersheds.
- Implementation of atrazine best management practices resulted in 16% less atrazine being applied in the targeted watersheds and an estimated 27% less atrazine potentially being lost in runoff waters.
- Actual water quality monitoring of treated and untreated watersheds found approximately 40% lower atrazine concentrations in streams in targeted watersheds in which best management practices had been implemented.

Background. The Little Arkansas River Basin is located in central Kansas. This watershed provides drinking water to 205 public water suppliers, recreational and aquatic life habitat, and ground water recharge as well as irrigation, livestock and industrial uses. Artificial groundwater recharge, storage and recovery are being conducted during periods of excessive water flow in the Little Arkansas in order to provide adequate drinking water for the city of Wichita. The Little Arkansas watershed is one of the most intensive agricultural watersheds in Kansas. Ninety-seven percent of the land area in the watershed is in agricultural production (78% cropland and 19% grazingland). There are documented water quality problems in the watershed. Kansas' 1998 Unified Watershed Assessment by the Kansas Department of Health and Environment (KDHE) and NRCS classified the watershed as "Category 1 - Watershed in Need of Restoration." Approximately 67% of the waterways in this watershed do not meet their designated uses. Additionally, approximately 52% of the river and stream segments require TMDLs. The most common



Photo 1. Little Arkansas River in McPherson County, KS.

pollutants for rivers and streams include fecal coliform bacteria, excess nutrients, atrazine herbicide, and sediment and total suspended solids. Numerous lakes can be found in the watershed. Fifty percent of the lakes require TMDLs; 67% are impaired by eutrophication and 16% are impacted by low dissolved oxygen and siltation. A watershed restoration and protection strategy was completed in November 2004 by a watershed stakeholder group consisting of landowners, agency personnel, and other citizens. The WRAPS plan identified public outreach methods, required monitoring activities, specific water quality problems, educational needs, actions needed to be taken to achieve water quality goals and outcomes, the schedule for implementation of needed restoration measures, and funding needs. The local stakeholders in the watershed identified implementation goals needed in order to achieve the desired endpoint of overall water quality improvement. These goals include:

Goal 1: Reduce atrazine herbicide in water to reach goal of 3 µg/L, with no seasonal spikes.

Goal 2a: Reduce fecal coliform bacteria (originating from cropland) in water to < 200 cfu/100 ml water for swimming and < 2,000 cfu/100 ml water for wading (boating and fishing).

Goal 2b: Reduce fecal coliform bacteria (from grassland and septic systems) in water to < 200 cfu/100 ml water for swimming and < 2,000 cfu/100 ml water for boating and fishing.

Goal 3: Reduce nutrients and sediment to achieve goal of DO > 5mg/L, BOD < 3.5 mg/L, TDS < 808 mg/L and TSS < 101 mg/L in lake waters.

Implementation. Once the WRAPS strategy was completed, implementation began. The watershed stakeholders groups' top priority for implementation was "Goal 1: Reduce atrazine herbicide in water to reach goal of 3 µg/L, with no seasonal spikes." A decision was also made to target specific sub-watersheds within the Little Arkansas River Watershed in order to document water quality improvements.

Three watersheds within the Little Arkansas River Watershed were targeted for rapid implementation of best management practices (BMPs) for atrazine herbicide. The watersheds selected were: Dry Turkey Creek (23,290 acres), West Upper Emma Creek (30,300 acres), and Black Kettle Creek (19,790 acres). An education and demonstration program, surface water monitoring plan, and incentive program for BMP implementation were developed and delivered during 2006 to the three watersheds. Grain sorghum acres were targeted, as past research indicated that atrazine BMP implementation would have greatest impact on atrazine applied to grain sorghum.

Education and Demonstration Program. The atrazine BMP education program was coordinated and led by Ron Graber, KSU Extension Watershed Specialist and Dale Ladd, McPherson County Extension Agent. A EPA 319 grant, administered by the Kansas Department of Health and Environment, and a USDA grant helped fund the educational programs. The education and demonstration program focused on teaching atrazine BMPs to farmers, pesticide dealers and applicators, and consultants in the watershed. A training session was held in November 2005 for crop consultants. Thirteen crop consultants attended the training and were trained on atrazine BMPs. Atrazine BMP trainings were then conducted in November and December 2005 in each of the three targeted watersheds for farmers. Fifty-four farmers attended the training. A publication, "Atrazine Best Management Practices for the Little Arkansas River Watershed," was developed and distributed to explain atrazine runoff and BMPs.

Integrated agricultural management (IAMS) BMP demonstration/research sites were developed at three farmer field sites in McPherson County to study and demonstrate the effectiveness of BMPs for pesticides, sediments, and nutrients. At each site, several different BMPs were implemented and automated samplers to catch samples of runoff were installed. The water samples were then analyzed for sediment, pesticide, and nutrient content. The BMP sites were also used as demonstrations to show farmers the crop production and weed control effectiveness of the various BMP options.

Rick Schlender, agronomist with the KSU - McPherson County Extension Office, visited on-farm with fifty farmers, instructing them on water quality concerns and atrazine BMPs and getting their commitment to implement atrazine BMPs.



Photo 2. Demonstration tour in the Little Arkansas watershed.

BMP Implementation Program. The city of Wichita and the State Conservation Commission each provided \$10,000 (total \$20,000) for incentive payments to farmers for implementing atrazine BMPs on grain sorghum fields located within the three targeted watersheds. The County Conservation Districts handled the funding and payments to farmers. Payments were based on the amount of pollutant reduction practices the farmers were willing to implement. The maximum payment was \$6.00 per acre. A worksheet

similar to that showed on page 3 was used to calculate payments (See Worksheet 1). Rick Schlender, agronomist with the KSU - McPherson County Extension Office, visited on-farm with farmers to get their commitment to implement atrazine BMPs. Farmers signed up for the program while Rick was at their farm. He also checked compliance to ensure BMP adoption.



Photo 3. IAMS site in McPherson County, KS.

Program Evaluation and Results.

BMP Implementation. Rick Schlender visited one-on-one with 50 farmers. Forty-one of the farmers committed to implementing atrazine BMPs, and signed up to receive incentive payments. All of \$20,000 in incentive monies were committed to the participating farmers. A total of 4,792 acres of grain

Worksheet 1. Form used calculate incentive payment.

<u>Atrazine BMPs Utilized</u> (Check all that apply)	<u>Reduction in Runoff Factor</u>
<input type="checkbox"/> Incorporate atrazine into the first 2 inches of soil prior to planting	.70
<input type="checkbox"/> Apply atrazine in the fall or prior to April 15	.50
<input type="checkbox"/> Apply atrazine as part of a postemergence premix	.60
<input type="checkbox"/> Reduce soil-applied atrazine rates to 1 lb ai/acre or less	.33
<input type="checkbox"/> Use split applications of atrazine, e.g. 2/3 prior to April 15 and 1/3 at planting	.25
<input type="checkbox"/> Band apply atrazine at planting	50
<input type="checkbox"/> Use no atrazine	1.00
TOTAL ATRAZINE BMP RUNOFF EFFECTIVENESS (TABRE) _____	
Add Reduction in Runoff Figure	
Incentive Payment Per Acre \$6.00 X TABRE	\$ _____
(Maximum payment per acre \$6.00)	
TOTAL FIELD PAYMENT	
_____ Acres X \$ _____ Incentive Payment Per Acre =	\$ _____

sorghum had atrazine BMPs implemented as a result of this program. This equates to just over 36.9% of the grain sorghum acres planted in the three targeted watersheds. BMP implementation by watershed is listed below.

Dry Turkey Creek	1,818 acres/44% of the grain sorghum acres
West Upper Emma Creek	1,688 acres/33% of the grain sorghum acres
Black Kettle	1,286 acres/33% of the grain sorghum acres

Estimated Reduction in Potential Atrazine Runoff. Potential reduction in atrazine runoff from the three targeted watersheds by BMP adoption can be estimated. Average reduction in atrazine runoff losses by implementation of a specific BMP has been published in Kansas State University publications MF-2208 and MF-2572. In addition, research has shown typical runoff losses of approximately 5% of applied atrazine when applied as a preemergence application. A survey in the Little Arkansas River watershed

Table 1. Atrazine BMPs implemented in 2006 by BMP and acres utilized.

Atrazine BMP Implemented	No. of Acres BMP Implemented	Percent of Total Acres with BMPs
Preplant incorporation	705	15
Early application	817	17
Postemergence application	146	3
Reduce soil-applied rates	455	10
Alternative crop	1807	38
Combination of early application and reduced soil applied rate	852	18
No atrazine applied	6	.1

indicated average preemergence atrazine rates of 1.5 lb ai per acre. Using these figures and assuming 100% of the atrazine applied prior to this implementation project was applied as a preemergence treatment would calculate total atrazine applied to grain sorghum in the targeted watersheds of 19,478 lbs ai and potential atrazine runoff losses prior to atrazine BMP implementation of 974 lb ai. Following BMP implementation in 2006, total atrazine applied (estimated) in the targeted watersheds was 16,383 lb ai with potential runoff losses of 716 lb ai or a total reduction in atrazine runoff across the targeted watersheds of 27%. This 27% reduction in potential atrazine runoff occurred even when assuming no atrazine BMPs were implemented on the remaining 63% of the grain sorghum acres not in the incentive program.

Water Quality. A paired watershed study was designed to determine water quality improvements with BMP implementation. An automated surface water monitoring system was installed in the streams at the base of the three watersheds targeted for BMP implementation and also at the base of two adjoining watersheds, Running Turkey Creek and Lower West Emma Creek. The adjoining watersheds had no special programs for BMP implementation so can serve as check watersheds to determine water quality improvements in the targeted watersheds. Water quality monitoring of treated and untreated watersheds in 2006 found approximately 40% lower atrazine concentrations in streams in targeted watersheds in which best management practices had been implemented (Figure 1). Average concentrations of atrazine in the Little Arkansas River in the summer months of 2006 were consistently below the 3 ppb goal established by the watershed stakeholder group (Figure 2).

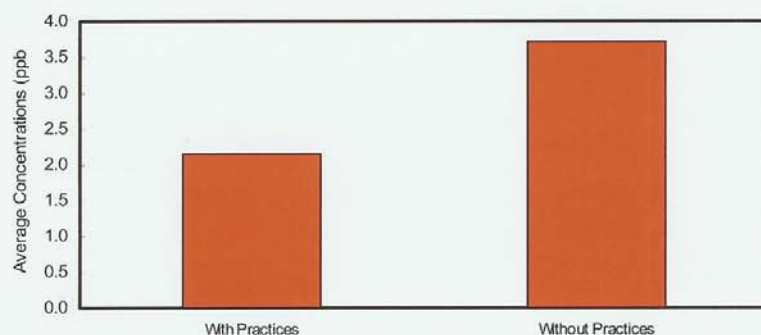


Figure 1. Atrazine concentrations in streams in watersheds in which atrazine BMPs were implemented compared to atrazine concentrations in streams in watersheds in which atrazine BMPs had not been implemented. Monitoring data collected during April through August 2006. Data supplied by Philip Barnes, KSU.

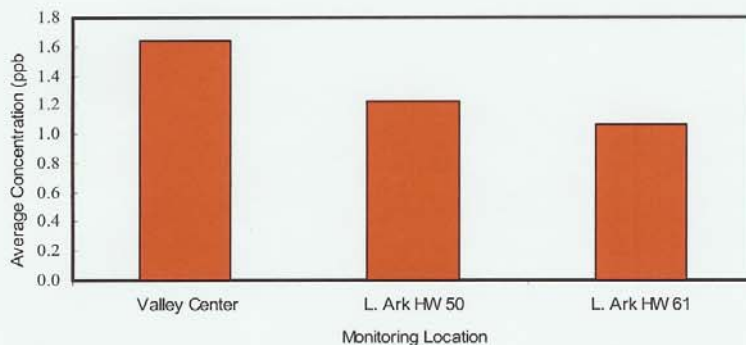


Figure 2. Atrazine concentrations in the Little Arkansas River at various locations in the watershed. Monitoring data collected during April through August 2006. Data supplied by Philip Barnes, KSU.

Project Cooperators

City of Wichita
Environmental Protection Agency - Section 319
Kansas State University Research and Ext
- Department of Agronomy
- Department of Biological and Agricultural
Engineering
- McPherson County Extension Office
- Harvey County Extension Office
Harvey County Conservation District
Harvey County NRCS
Kansas Department of Health and Environment
Little Arkansas River WRAPS Stakeholders Committee
McPherson County Conservation District
McPherson County NRCS
State Conservation Commission
USDA-CSREES

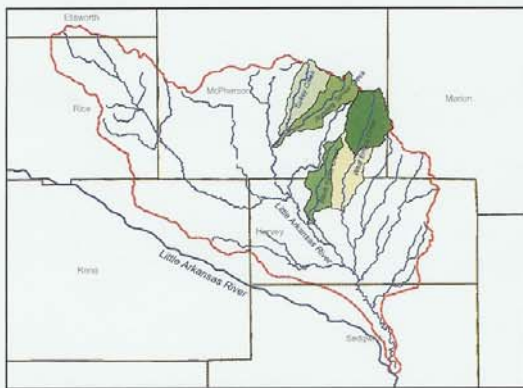


Figure 3. Map of Little Arkansas River watershed. Smaller watersheds in which monitoring stations were installed are shown in shades of green.



Photo 4. Stream monitoring site.

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